A data-based comparison of the effect of prefixation on valency in Czech and German

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Czech and German represent two languages in which prefixation is the most frequent way of forming new verbs (Fleisher 2012: 373; Körtvélyessy 2016) and in which the addition of a prefix can have an effect on the valency of the base verb, i.e., the number and function of syntactic positions that are required by the verb (cf. examples 1, 2 where the prefixed verb has an additional patient position).

This interaction has been investigated in both languages (Jirsová 1979; Uher 1987; Stiebels 1996; Wunderlich 1997; Zeller 2001) and the analogies found between Slavic and Germanic prefixes (Svenonius 2004; Ramchand 2008) have mostly been approached from a formal perspective using a number of selected examples. Our goal is to examine this issue from a data-based perspective, using a combination of data resources on word-formation and valency properties of verbs.

We use a list of Czech and German verbs from comparable corpora (Čermák et al. 2000; Geyken et al. 2007) annotated for their morphemic structure using available resources combined with manual post-checking (Slavíčková 1975; Kyjánek et al. 2021) from which we extracted pairs of prefixed verbs and their base verbs. To analyze the valency changes that happen between the verbs in each pair, we use a lexical resource (*SynSemClass*; Urešová et al. 2023) which includes both Czech and German verbs and categorizes them into semantic classes (cf. classes for *leben* 'to live' in example 3).

Each verb in a particular class is linked to a specific valency frame in a valency lexicon (Hölzner 2016; Jindal et al. 2022; Lopatková et al. 2022; Urešová 2024). This allows us to carry out the analysis on the level of changes in specific semantically related valency frames of the base verb and prefixed verb, and also deal with the differences in valency descriptions in the individual lexicons available for the two languages. The final sample includes 869 Czech and 214 German items, i.e., individual links between a valency frame of the prefixed verb and a valency frame of its base verb.

The results show that the verb pairs in Czech and German behave similarly in a number of ways. In both languages, the addition of a prefix does not lead to any valency change in the majority of cases. When there is a change, it most often includes the addition of the patient argument (cf. examples 1, 2). In the third valency position (which contains the addressee, origin or effect position), the data document that although previous descriptions have mostly focused on the addition of valency positions, prefixation can also result in a position being removed (cf. example 4).

Despite limitations due to the coverage of the *SynSemClass* lexicon in both languages, the analysis demonstrates the possibility of using a combination of word-formation and valency data resources to reveal analogical cross-lingual patterns in the interaction between prefixation and valency.

Examples

(1) *jemand lebt   > jemand er-lebt etwas*
    'someone lives' 'someone lives through something'

*(*2*) někdo spí   > někdo pro-spí něco*
    'someone sleeps' 'someone sleeps through something'

(3) *leben*:   vec00400 'A *Protagonist* is alive'
              vec00308 'A *Resident* has his/her seat at *Place*'
              vec00600 'A *Participant_1* lives with *Participant_2*'

(4) *někdo prodá něco někomu   > někdo vy-prodá něco*
    'someone sell something to someone'   'someone sells out something'

References

Fleischer, W. 2012. *Wortbildung der deutschen Gegenwartssprache*. De Gruyter.

Jirsová, A. 1979. Prefixace sloves a slovesná vazba. *Naše řeč*, *62*(1):1–7.

Körtvélyessy, L. 2016. Word-formation in Slavic languages. *Poznan Studies in Contemporary Linguistics*, *52*(3):455–501.

Ramchand, G. 2008. *Verb Meaning and the Lexicon: A First-phase Syntax*. Cambridge University Press.

Stiebels, B. 1996. *Lexikalische Argumente und Adjunkte: Zum semantischen Beitrag von verbalen Präfixen und Partikeln*. De Gruyter.

Svenonius, P. 2004. Slavic prefixes inside and outside VP. *Nordlyd 32*(2), 205–253.

Uher, F. 1987. *Slovesné předpony*. Univerzita J. E. Purkyně.

Wunderlich, D. 1997. Argument extension by lexical adjunction. *Journal of Semantics*, *14*(2):95–142.

Zeller, J. 2001. How syntax restricts the lexicon: Particle verbs and internal arguments. *Linguistische Berichte, 188*:461–494.

Language Resources

Čermák, F., Blatná, R., Hlaváčová, J., Klímová, J., Kocek, J., Kopřivová, M., Křen, M., Petkevič, V., Schmiedtová, V., and Šulc, M. 2000. S*YN2000: žánrově vyvážený korpus psané češtiny*. Ústav Českého národního korpusu FF UK, Praha.

Geyken, A. 2007. The DWDS corpus: A reference corpus for the German language of the 20th century. In *Idioms and Collocations: Corpus-based Linguistic and Lexicographic Studies*, pp. 23–40. Continuum International Publishing Group.

Hölzner, M. 2006. Valbu – valenzwörterbuch deutscher verben. *Informationen Deutsch als Fremdsprache*, *33*(2-3):265–267.

Jindal, I., Rademaker, A., Ulewicz, M., Linh, H., Nguyen, H., Khoi-Nguyen, T., Zhu, H., and Li, Y. 2022. Universal proposition bank 2.0. In *Proceedings of the Language Resources and Evaluation Conference*, pp. 1700–1711. European Language Resources Association

Kyjánek, L., Žabokrtský, Z., Vidra, J., and Ševčíková, M. 2021. *Universal derivations v1.1*. LINDAT/CLARIAH-CZ digital library.

Lopatková, M., Kettnerová, V., Mírovský, J., Vernerová, A., Bejček, E., and Žabokrtský, Z. 2022. *VALLEX 4.5*. LINDAT/CLARIAH-CZ digital library.

Slavíčková, E. 1975. *Retrográdní morfematický slovník češtiny*. Academia, Praha.

Urešová, Z., Fernández-Alcaina, C., Bourgonje, P., Fučíková, E., Hajič, J., Hajičová, E., Rehm, G., Rysová, K., and Zaczynska, K. 2023. *SynSemClass 5.0*. LINDAT/CLARIAH-CZ digital library.